

# Sexual intercourse during pregnancy as a source of anxiety in pregnant women

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## Research article

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# Abstract

**Background:** Pregnant women feel and accept the need for sexual activity and in most cases engage in intercourse during pregnancy. The aim of the study was to assessment of the occurrence of anxiety associated with the possibility that the fetus is at risk, which results from having sexual contacts by healthy women during pregnancy.

**Methods:** 373 women were surveyed using a self-constructed questionnaire containing questions about sexual life during pregnancy. The examination took place between the first and the fifth day after delivery, when patients stayed in the Obstetric Ward. All women delivered healthy children on time. The obtained results were subjected to statistical analysis. **Results:** Among 373 examined women, 319 (85,5%) had intercourses during pregnancy, while 54 (14,5%) were not sexually active. In a group of sexually active women, 196 (52,2%) felt anxiety that pregnancy may be at risk due to this activity.

**Conclusions:** It is advisable for the doctor and midwife to talk with a pregnant woman about differences in intercourse and quality of sex life during pregnancy, minimizing the occurrence of fear about fetus well-being.

## Background

Despite the development of sexology as a science that uses modern methods of studying sexual behavior, the sexual life of pregnant women is a little-known part of female physiology [1,2].

To this day, there is a perception that sexual intercourse during pregnancy is harmful, as it can cause infection of the developing fetus, miscarriage, premature delivery or fetal damage [3,4]. Pregnancy is a physiological condition, however, it differs significantly from the period of time before and after it. Hormonal regulation, psycho-emotional state, perception of one's physicality are changing. In addition, during pregnancy there is a decrease in libido associated with fatigue and a negative body image, as well as anorgasmia resulting from a lack of sufficient desire [5-8].

Anxiety that pregnancy may be at risk and changes in the sexuality of a pregnant woman cause the fear of sexual activity [6]. It is often perpetuated because women do not want to discuss this issue with the obstetrician [9, 10].

Problems associated with satisfying the sexual needs of pregnant women are disregarded by some gynecologists and underestimated by many, probably due to insufficient knowledge on this subject due to scarce source literature and the lack of awareness of the importance of the issue for the couple's relationship and their sexual health in the future [1,2,7].

## Objective

The aim of the study was to answer the question of what percentage of healthy pregnant women have sexual intercourse and whether it is a source of anxiety that the pregnancy may be at risk due to sexual activity. It was also examined if women believe that sexual intercourse during pregnancy is needed and whether, despite anxiety, they had sexual contact and what kind of sexual activity it was. In addition, the level of doctor's involvement in explaining differences between regular intercourse and intercourse during pregnancy was assessed.

## Methods

The study was conducted using a self-constructed questionnaire that contained questions about sex life during pregnancy (Table I). In the period from May to November 2006, 373 women between the first and the fifth day of hospitalization after the physiological delivery of a healthy child were examined. 295 questionnaires were obtained from the Obstetric Ward of the Specialist Hospital in Dąbrowa Górnicza, and 78 from the Clinical Ward of the Medical University of Silesia in Ruda Śląska - Godula. The survey was anonymous and voluntary, each questionnaire was accompanied by consent to participate in the study. Every patient was individually informed about the purpose and method of examination by the doctor or midwife providing the survey. Consent was given in writing and ethics approval was not applicable. The obtained data was collected in an MS Excel 2000 spreadsheet and analyzed using the chi-square test.

**Table I. Questionnaire on sexual health during pregnancy.**

1. Did you have sexual intercourse during pregnancy?	yes	no
2. Have you been anxious that your pregnancy may be at risk during sexual intercourse?	yes	no
3. Did your husband insist on having intercourse ?	yes	no
4. Have you talked to your doctor about the possibility of intercourse?	yes	no
5. What was your doctor's opinion?  a. sexual intercourse during pregnancy is safe  b. you should not have intercourse during pregnancy  c. instructed about the differences between regular intercourse and intercourse during pregnancy		
6. Did you feel a greater need for sexual intercourse during pregnancy?	yes	no
7. In which period of pregnancy the need for sexual contact was greater? (you can select more than one answer)  a. up to 12 weeks   b. between 12 and 24 weeks   c. between 25 and 32 weeks  d. between 33 and 40 weeks		
8. Do you think there is a difference in the quality of sexual experiences in pregnancy and when you are not pregnant?	yes	no
9. Did you reach an orgasm during pregnancy?	yes	no
10. In which positions did you have sexual intercourse during pregnancy?  a. classic   b. from behind   c. side-by-side   d. woman-on-top		
11. Have you been active or passive during sexual contact?  a. active   b. passive		
12. Do you think that active intercourse during a healthy pregnancy is needed?	yes	no

## Results

Among 373 patients, 319 (85.5%) had sexual intercourse during pregnancy, and 54 (14.5%) did not engage in sexual contact. All the surveyed women were asked if they felt anxiety about having intercourse during pregnancy. 196 of them (52.5%) gave an affirmative answer, and 177 (47.5%) women were not anxious that their pregnancy might be at risk due to sexual activity. The statistical relationship between sexual activity and the occurrence of anxiety that pregnancy may be at risk was evaluated (Table II).

**Table II. The occurrence of anxiety that pregnancy may be at risk and sexual intercourse during pregnancy.**

Question		Did you have sexual intercourse?		TOTAL
		YES	NO	
Have you been anxious that your pregnancy may be at risk during sexual intercourse?	YES	161 82.1%	35 17.9%	196 100.0%
	NO	158 89.3%	19 10.7%	177 100.0%
<i>Comparison</i>		p<0.05		

Intercourse as a source of anxiety about pregnancy well-being occurred in 82.1% of sexually active pregnant women, but also in 17.9% who did not engage in sexual contact. Women who were not anxious that their pregnancy might be at risk were more likely to have intercourse (p <0.05).

Patients were also asked if active intercourse in a healthy pregnancy is needed. Then, a statistical analysis of the relationship between the need for sexual contact during pregnancy and anxiety about its well-being was carried out (Table III).

**Table III. The need for active sexual intercourse in a healthy pregnancy and anxiety that pregnancy may be at risk.**

Question		Have you been anxious that your pregnancy may be at risk during sexual intercourse?		TOTAL
		YES	NO	
Do you think that active intercourse during a healthy pregnancy is needed?	YES	167 53.3%	146 46.7%	313 100.0%
	NO	29 48.3%	31 51.7%	60 100.0%
<i>Comparison</i>		NS*		

\* not significant

Among women who were anxious that pregnancy might be at risk, 167 (53.3%) believed that sexual intercourse during pregnancy was needed and 29 (48.3%) had the

opposite opinion. There was no correlation between the anxiety about pregnancy well-being and the need for intercourse.

In addition, the survey also included the question of whether pregnant women talked to the doctor about the differences in regular intercourse and intercourse during pregnancy. Statistical analysis was performed between the answer to this question and sexual activity in pregnancy (Table IV).

**Table IV. The relationship between the conversation with the doctor about the differences in regular intercourse and intercourse during pregnancy, and sexual activity.**

Question	Did you have sexual intercourse during pregnancy?			TOTAL
	YES	NO		
Have you talked to your doctor about differences between regular intercourse and intercourse during pregnancy	YES	189 <i>88.3%</i>	25 <i>11.7%</i>	214 <i>100.0%</i>
	NO	130 <i>81.8%</i>	29 <i>18.2%</i>	159 <i>100.0%</i>
<i>Comparison</i>	NS*			

\* not significant

The analysis did not show a statistically significant relationship between talking to a doctor about the differences between regular intercourse and intercourse during pregnancy, and sexual activity of pregnant women. 130 (81.8%) of the surveyed women who did not speak to a doctor had sexual intercourse, while 25 (11.7%) did not engage in sexual intercourse despite having such a conversation.

## Discussion

Changes in body appearance and well-being happen at a very fast pace, which means that a woman must adapt to a new situation just as quickly. Self-esteem and self-acceptance are deteriorating, and frequent mood swings adversely affect relationships [11]. The quality of sex life of a pregnant couple is clearly changing. The anxiety that pregnancy may be at risk due to sexual activity is becoming more important [12,13]. Unfortunately, there are no in-depth studies describing emotional changes and the occurrence of anxiety during pregnancy due to sexual activity. Few studies on the sexuality of pregnant women focus on the quantitative analysis of sexual activity, neglecting the subjective experience of a woman. The results obtained as part of this work cannot be referred to Polish studies, because such papers have not been published. In turn, in the world literature, anxiety is studied as an

element of sexuality, as well as the frequency of sexual contact, the level of desire and excitement, reaching orgasm [12,13,14,15].

The presented study shows that 85.5% of pregnant women have sexual intercourse, but almost half of all surveyed patients feel anxious that their pregnancy may be at risk due to sexual activity. It seems that these results may be of great clinical importance for normal pregnancy as an indication for the elimination of anxiety by providing a pregnant woman and her partner with reliable information on the reasons for differences in regular intercourse and intercourse during pregnancy, minimizing the sources of anxiety, especially since almost 84 % of patients feel sexual need and believe that sexual activity in pregnancy is needed. The study also revealed that 26% of patients had a greater need for intercourse during pregnancy, 76.2% declared reaching orgasms, however, 70% reported lower sexual satisfaction. These observations are confirmed by the work of Aslan et al. which shows that as pregnancy develops, interest in sex increases significantly, but the quality of sexual intercourse deteriorates [9].

Statistical analyzes show a significant increase in the importance of sexual intimacy, sexual intercourse, satisfaction with sexual life from the period before pregnancy, through early pregnancy with a decrease in the perinatal period [5,6].

Despite the increased importance and need for sexual intercourse during pregnancy, many couples experience reduced sexual activity and the number of vaginal intercourses, as well as decreased desire, especially for women [16]. Such behavior is clearly observed when both, the woman and her partner feel anxiety about pregnancy complications as a result of sexual contact [17,18,19]. Although there is no direct reference to this topic in the literature, in our studies 88% of partners of pregnant women did not pressure them to engage in intercourse, which is why the need to provide information on changes in sexual life during pregnancy to both parents is clearly emphasized [20,21].

Most sexual positions and activities during pregnancy are not associated with an unsuccessful delivery [23,24], although the results of studies by Ekwo et al. show that the classic position is significantly associated with the occurrence of premature rupture of the fetal membranes, and premature delivery without rupture of the membranes [17]. In this study, almost half of the women had sex only in a classic position and half were active. A review of the literature indicates that sexual intercourse during pregnancy does not cause its complications and does not threaten the well-being of the fetus [25]. In addition, sexual intercourse in the period before the planned date of delivery does not cause cervical maturation and does not accelerate delivery [26]. Sayle et al. provided evidence against the hypothesis that sexual activity between 29 and 36 weeks of pregnancy increases the risk of premature delivery, although they have not ruled out that small subgroups of women may have a reverse reaction to sexual activity [27].

Studies by Tan et al. show that sexual activity during pregnancy is affected by a sense of security during intercourse, ethnicity and age of the partner. They also noted that sexual intercourse after the expected date of delivery is associated with earlier spontaneous

delivery and reduces the indications for its pharmacological induction at 41 weeks of pregnancy [28].

The mentioned ethnicity is very important in the description of sexuality of individual human races and is their differentiating feature also during pregnancy, which should be taken into account in the discussion [29,30]. Fok et al. reported that pregnant Chinese women have less sexual activity and feel less desire. According to the researchers, upbringing, insufficient knowledge, excessive fear and anxiety about pregnancy well-being are probably important factors reducing the sexual activity in Chinese couples. Based on the study, Chinese scientists request a greater involvement of medical staff and to take an active role in providing more information to the pregnant woman and her partner to reduce the occurrence of anxiety [31]. It seems that similar expectations should be met by obstetricians in Europe and America, because according to studies conducted on these continents, most pregnant women are uninformed and lack sufficient knowledge [27,32].

In this study, out of 373 surveyed women, 214 (57.4%) talked to the doctor about the differences in regular intercourse and intercourse during pregnancy. Among women who talked to their doctor, 36.2% heard that they could have intercourse as before, 4.8% received the opposite answer and 59.0% got information about changes in regular intercourse and intercourse during pregnancy.

Couples expecting a child should receive information about sexual problems and changes in sexual behavior during pregnancy [27,32]. Most women want to discuss this topic with their doctor, but they do not always feel comfortable starting a conversation about it [27]. However, medical advice can provide valuable knowledge about psychosexual changes and help a couple understand the physiological changes in sex life during pregnancy and after delivery.

It should be emphasized that the influence of the emotional relationship and mutual relations of the partners or fatigue of the pregnant woman on her sexuality as well as effect on delivery and sexuality after pregnancy are constantly being discussed [33,34]. The role of doctors in this case is huge, because according to studies conducted by Barret et al, only 19% of women talked about sexual problems after giving birth [35].

## Conclusions

1. Pregnant women feel and accept the need for sexual activity and in most cases engage in intercourse during pregnancy.
2. Despite the acceptance and willingness to have intercourse, more than half of sexually active pregnant women feel anxious that pregnancy may be at risk due to this activity.
3. It is advisable for the doctor and midwife to talk to the pregnant woman about differences in intercourse and quality of sex life during pregnancy, minimizing the occurrence of fear about fetus well-being.

## **Declarations**

### **ETHICS APPROVAL AND CONSENT TO PARTICIPATE**

For this type of study, formal consent is not required. It did not need formal ethics approval, and authors confirm that this complies with national guidelines and provide a reference which supports this. This is a retrospective study based on medical records. According to the Polish statute, this is a non-interventional study (Article 37a (1) of the Pharmaceutical Law) and therefore, in the understanding of the Act of 5 December 1996 on the professions of doctor and dentist, do not require the Opinion of the Bioethical Committee and do not constitute clinical trials.

Oral consent was obtained from patients. This is only related to the survey and research surveyor.

### **CONSENT FOR PUBLICATION**

Informed consent was obtained from all of the patients recruited. Oral consent was obtained from patients. This is only related to the survey and research surveyor. The survey was anonymous and voluntary. Every patient was individually informed about the purpose and method of examination by the doctor or midwife providing the survey.

### **AVAILABILITY OF DATA AND MATERIALS**

Data are available from the authors upon reasonable request and with permission of all authors.

### **FUNDING STATEMENT**

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### **COMPETING INTERESTS**

The authors declare that they have no competing interests.

### **AUTHORS' CONTRIBUTIONS**

BW was responsible for conception, data analysis, writing the manuscript, and supervisor. KT contributed in data analysis, literature searching. NZ contributed in graphic performance, literature searching. BG was responsible for manuscript preparation. DB was a supervisor, and he approved the final version of the paper.

all authors have read and approved the manuscript.

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